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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,641	11/09/2001	Christian Hardy	SCHN:010	5619

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EXAMINER	
KIM, HAROLD J	

ART UNIT	PAPER NUMBER
2181	

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/986,641	HARDY ET AL.	
	Examiner	Art Unit	
	Harold Kim	2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Aza M. Hanin
Supervisory
FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100
6/12/2006
Art Unit 2181

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the filing of the Amendment, filed on 3/24/2006, has been considered but they are new ground of rejection. Accordingly, this action is made **NON-FINAL.**

2. Reference(s) was/were cited in the last office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim language in the following claims is not clearly understood:

In re claims 1 and 19 , it is uncertain whether "a processing unit" [claim 1, line 11] and "a processing unit for executing the conversion program" [claim 1, line 19] refers to "a processing unit for executing program instructions" [claim 1, line 4]. It is not clear whether the the processing units are all same unit. As claimed, there would be a required multiplicity. However, the original filed claims only refer to a single "processing unit (21)" and the specification and drawings would support the concept of a single processing unit as well, for example at page 9.

Claims 13, 15, 17 contains the trademark/trade name BLUETOOTH [see, page 8 of the specification, line 20], FIP and Interbus-S [see, page 9, line 10]. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe protocols and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 6, 7, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Lebeau, US Patent no. 5,870,626.

5. In re claim 1, Lebeau shows programmable adapter device [fig 1] for communicating between a higher level communication protocol supported by higher level equipment [18, fig 1] and at least one lower level communication protocol

supported by a lower level automation equipment [col 1, lines 34-61; 1, fig 1], the device comprising an adapter [20, fig 1] comprising a processing unit [13, fig 1; col 3, line 37] for executing program instruction, a first higher level interface [16, fig 1] for connecting with a second higher level interface [18, fig 1] in such higher level equipment, and a first lower level interface [9, fig 1] for connecting with a second lower level interface [1, fig 1] in such lower level equipment, the adapter [20, fig 1] comprising:

a first memory [13, fig 1; expanded memory, col 3, lines 39],

a second non-volatile memory [col 3, line 28-30],

a processing unit [13, fig 1],

initiation means [14, 15 in fig 1; "the computer channel processors 14 and 15 enable", col 3, lines 47-48] for requesting a download into the first memory of a conversion program stored on a higher level equipment ["computers 18 and 19 to change the configuration and possibly to load other programs and other data on the central channel 13 ... to load new protocol conversion programs", col 3, lines 47-52; col 1, lines 50-56; col 3, line 39], the higher level equipment being external to the adapter [18 in fig 1], the conversion program for converting between the higher level protocol and a lower level protocol [col 3, lines 50-52], the initialization means being stored in the second non-volatile memory for execution by the processing unit [col 3, lines 26-37],

download means for downloading to the adapter for storage in the first memory the conversion program stored on the higher level equipment [col 3, lines 48-52], and

a processing unit for executing the conversion program [col 3, lines 21-23].

6. In re claims 6, 7, and 19, Lebeau shows a lower level connecting cable [5, fig 1]

connecting the lower level interface [9, fig 1] of the adapter with the lower level interface [1, fig 1] of a lower level equipment, wherein the lower level connecting cable comprises integrated recognition means [K5], detectable when the cable is connected to the lower level interface of the adapter, enabling the processing unit of the adapter to determined a complete identifier or a partial identifier of the lower level protocol using the resident driver program that is stored in the first memory of the adapter [col 2, lines 25-55; col 3, lines 1-25 and 45-52; col 4, lines 1-7; fig 1].

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 2-5, 8-18, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebeau, US Patent no. 5,870,626.

10. In re claims 2-5, 8-18, and 20-22, Lebeau does not explicitly show the first memory is a volatile memory, buffer memory area, using different communication channels as a function of the criticality of the messages to be transmitted, USB, BLUETOOTH, IEEE 1394-1995 standard, ModBus, ModBus+, Uni-Telway, RS-232, RS-

485, RS-422, Ethernet, TCP/IP, FIP, CAN, CANopen. Official Notice is taken that both the concept and the advantages of providing for having volatile memory, buffer memory area, using different communication channels as a function of the criticality of the messages to be transmitted, USB, BLUETOOTH, IEEE 1394-1995 standard, ModBus, ModBus+, Uni-Telway, RS-232, RS-485, RS-422, Ethernet, TCP/IP, FIP, CAN, CANopen standards are old and well known in the art. In addition, Lebeau teaches a device for the computer linking heterogeneous communication system as stated in the Title. The heterogeneous types are different types of communication protocols [col 4, lines 50-51]. Therefore, it would have been an obvious to one having ordinary skill in the art at the time the invention was made to includes the above limitations since one skilled in the art at the time of invention should have known the industry standard protocols and since it would provide the invention of Leberau with more flexible by allowing it to operate in multiple configurations.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive.

In the remarks, applicants argued in substance that (1) Lebeau does not disclose "initialization means for requesting download into the first memory of a conversion program stored on a higher level equipment, and "download means for downloading to the adapter for storage in the first memory the conversion program stored on the higher level equipment.

a resident driver program to initialize communication with the higher level equipment by using a higher level protocol between the adapter and the higher level equipment, and (2) Lebeau does not disclose a resident driver requests download of a conversion program from the higher level equipment for converting between a higher level protocol and a lower level protocol, as recited in applicants' claim 1.

Examiner respectfully traverses applicants' remarks.

Lebeau does show initialization means [14, 15 in fig 1; "the computer channel processors 14 and 15 enable", col 3, lines 47-48] for requesting download into the first memory of a conversion program stored on a higher level equipment ["computers 18 and 19 to change the configuration and possibly to load other programs and other data on the central channel 13 ... to load new protocol conversion programs", col 3, lines 47-52; col 1, lines 50-56; col 3, line 39]. Therefore, Lebeau also shows "download means for downloading to the adapter for storage in the first memory the conversion program stored on the higher level equipment ["computers 18 and 19 to change the configuration and possibly to load other programs and other data on the central channel 13 ... to load new protocol conversion programs", col 3, lines 47-52; col 1, lines 50-56; col 3, line 39].

Conclusion

THIS ACTION IS MADE NON-FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this action should be mailed to:

Mail Stop ____
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

The centralized fax number is 571-273-8300.

The centralized hand carry paper drop off location is:

U.S. Patent and Trademark Office
Customer Service Window, Mail Stop _____
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application should be directed to the central telephone number (571) 272-2100.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harold Kim whose telephone number is 571-272-4148. The examiner can normally be reached on Monday-Friday 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fritz Fleming can be reached on 571-272-4145. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HK

Harold J. Kim
Patent Examiner
June 12, 2006/HK

Supervisory

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6/12/2006